Published/Communicated Research Work:

The following is the list of research articles resulted from the present thesis work.

1. N. Yadav and S. Shah, "Topological weak specification and distributional chaos on noncompact spaces", International Journal of Bifurcation and Chaos, 32(4), 2250048 (2022). (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **2.2**)

2. N. Yadav and S. Shah, "Li-Yorke chaos and topological distributional chaos in a sequence", Turkish Journal of Mathematics, 46(4), 1360–1368 (2022). (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **1.0**)

3. N. Yadav, "Weaker forms of specification for maps on uniform spaces", Dynamical Systems, 39(1), 150–165 (2024). (**SCOPUS** Indexed, **SCIE Journal**, 2022 Impact Factor: **0.5**)

4. N. Yadav and S. Shah, "A note on distributionally scrambled sets", Communicated.

5. N. Yadav, "Distributional chaos via specification for $\mathbb{Z}^d$-actions", Communicated.

6. N. Yadav, "A note on k-type distributional chaos in a sequence for $\mathbb{Z}^d$-actions", Communicated.

Awards/Prizes:

- Received Dr. A. K. Shah Best Research Paper Award in Mathematical Sciences-2022 for the paper entitled "Topological weak specification and distributional chaos on noncompact spaces", International Journal of Bifurcation and Chaos, 32(4), 2250048 (2022), by Gujarat Science Academy.

Research Work Presented in Conferences:

1. "On topological distributional chaos", at the 26th International Conference on Difference Equations and Applications–ICDEA 2021, organized virtually by Department of Mathematics, University of Sarajevo, Bosnia, during July 26-30, 2021.

2. "Topological distributional chaos in a sequence", at the 27th International Conference of the International Academy of Physical Sciences (CONIAPS-XXVII) on Mathematical Analysis and its Applications, organized virtually by Department of Mathematics, Central University of Kerala, India, during October 26-28, 2021.

3. "On multidimensional distributional chaos", at the 4th Prof. P. C. Vaidya International Conference on Mathematical Sciences, organized by Department of Mathematics, Veer Narmad South Gujarat University, Surat, India and Gujarat Ganit Mandal, during March 4-5, 2023.

4. "On k-type distributional chaos in sequence", at the National Conference on Scientific Innovations towards Developed India, organized by Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, India, on February 28, 2024.

Awards/Prizes:

- Awarded Second prize for the paper presentation entitled, "On k-type distributional chaos in sequence", at the National Conference on Scientific Innovations towards Developed India, organized by Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, India, held on February 28, 2024.